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| 10/538,046 | 08/26/2005 | Stefan Gustafsson | 3660-43 | 1437 |

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| EXAMINER |
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ADDY, ANTHONY S

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| ART UNIT | PAPER NUMBER |
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2617

| SHORTENED STATUTORY PERIOD OF RESPONSE | MAIL DATE | DELIVERY MODE |
|--|------------|---------------|
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Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

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|------------------------------|--------------------------------------|--|--|
| Office Action Summary | Application No. 10/538,046 | Applicant(s) GUSTAFSSON ET AL. | |
| | Examiner Anthony S. Addy | Art Unit 2617 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26 August 2005.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-11 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-11 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 08 June 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date <u>06/08/2005</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Information Disclosure Statement

1. The references listed in the Information Disclosure Statement filed on June 08, 2005 have been considered by the examiner (see attached PTO-1449 form or PTO/SB/08A and 08B forms).

Claim Rejections - 35 USC § 101

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

2. Claims 9, 10 and 11 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter as follows:

Claim 9 recites "**a computer program comprising program instructions for causing a computer ...**" and claims 10 and 11 recites "**computer program on a carrier and comprising computer executable instructions for causing a computer ... wherein said carrier is a record medium, computer memory, read-only memory or an electrical carrier signal**" implies a "signal" *modulated/encoded/embodied on a carrier wave/etc. (as defined on page 8, lines 29-38 of the specification)* with functional descriptive material. While functional descriptive material may be claimed as a statutory product (i.e., a "manufacture") when embodied on a tangible computer readable medium, a "signal" per se does not fall within any of the four statutory classes of 35 U.S.C. §101. A "signal" is not a process because it is not a series of steps per se. Furthermore, a "signal" is not a "machine", "composition of matter" or a

“manufacture” because these statutory classes “relate to structural entities and can be grouped as ‘product’ claims in order to contrast them with process claims.” (1 D. Chisum, Patents § 1.02 (1994)). Machines, manufactures and compositions of matter are embodied by physical structures or material, whereas a “signal” has neither a physical structure nor a tangible material. That is, a “signal” is not a “machine” because it has no physical structure, and does not perform any useful, concrete and tangible result. Likewise, a “signal” is not a “composition of matter” because it is not “matter”, but rather a form of energy. Finally, a “signal” is not a “manufacture” because all traditional definitions of a “manufacture” have required some form of physical structure, which a claimed signal does not have.

A “manufacture” is defined as “the production of articles for use from raw materials or prepared materials by giving to these materials new forms, qualities, properties, or combinations, whether by hand-labor or by machinery.” *Diamond v. Chakrabarty*, 447 U.S. 303, 308, 206 USPQ 193, 196-97 (1980) (quoting *American Fruit Growers, Inc. v. Brogdex Co.*, 283 U.S. 1, 11, 8 USPQ 131, 133 (1931)).

Therefore, a “signal” is considered non-statutory because it is a form of energy, in the absence of any physical structure or tangible material, that does not fall within any of the four statutory classes of 35 U.S.C. §101.

NOTE: Refer to Annex IV, section (c) of the USPTO “Interim Guidelines for Examination of Patent Applications for Patent Subject Matter Eligibility”, Official Gazette notice of 22 November 2005 (currently at <http://www.uspto.gov/web/offices/com/sol/og/2005/week47/patgupa.htm>).

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Lundin, U.S. Publication Number 2001/0003093 A1 (hereinafter Lundin)**, and further in view of **Jha et al., U.S. Publication Number 2004/0138807 A1 (hereinafter Jha)**.

Regarding claims 1 and 5, Lundin teaches a system (see Fig. 2) and a method (see Fig. 5) for obtaining the position of a mobile station (16) located in a current network of a communications system including a plurality of networks (i.e. local PLMN 47 and remote PLMN 50) supporting different positioning protocols (see p. 2 [0022], p. 3 [0023], p. 4 [0028] and Figs. 1, 2 & 5), characterised by the steps of: identifying at a location centre (MPC 52 or MPC 60) the current network (i.e. local PLMN 47 or remote PLMN 50) of said mobile station (16) (see p. 2 [0022], p. 3 [0025] and p. 4 [0028]), based on said identified current network (6), using a suitable positioning protocol for communication of location information with said current network (6) (108) (see p. 3 [0025-0026] and p. 4 [0028-0029]).

Lundin fails to explicitly teach selecting among at least two protocols based on said identified current network.

However, Jha teaches a location server that selects among a plurality of protocols, the best protocol for LCS communication (see abstract and p. 2 [0015]).

Additionally, Lundin teaches the use of a plurality of protocols, such as a positioning roaming protocol (PRP), IP based protocols, frame relay, ATM protocols e.t.c, for supporting internetworking roaming and offering positioning services; and further teaches a mobile positioning center (MPC) tailors position information based on an underlying protocol according to a particular system or network requirement (see p. 3 [0023] and p. 4 [0028-0029]).

It would therefore have been obvious to one of ordinary skill in the art at the time of the invention to modify Lundin with the teachings of Jha, to include a method of selecting among at least two protocols based on said identified current network, in order to forward position information to a requester based on an underlying protocol according to a particular system requirement of a roaming network.

Regarding claim 2, Lundin in view of Jha teaches all the limitations of claim 1. In addition, Lundin teaches a method, characterised by before the steps of identifying the current network of the mobile station, the further steps of: receiving at said location centre a positioning request (see p. 2 [0022], p. 3 [0025] and p. 4 [0028]), identifying the subscriber's home network, based on said identified home network (see p. 2 [0022], p. 3 [0025] and p. 4 [0028]), selecting a suitable positioning protocol for communication with said home network (see p. 3 [0023 & 0025] and p. 4 [0028-0029]), sending a routing information request to the home network, receiving an answer from the home network, and analysing the answer for identifying the current network of the mobile station (see p. 2 [0022], p. 3 [0025] and p. 4 [0028]).

Regarding claim 3, Lundin in view of Jha teaches all the limitations of claim 1. In addition, Lundin teaches a method, characterised by the further steps of: sending a position information request to the current network, and receiving an answer including location information about the subscriber from the current network (see p. 2 [0022], p. 3 [0026] and p. 4 [0028]).

Regarding claim 4, Lundin in view of Jha teaches all the limitations of claim 1. In addition, Lundin teaches a method, characterised in that any of the SS7 protocol, MLP or IP roaming protocol is selected (see p. 3 [0023 & 0025] and p. 4 [0028-0029]).

Regarding claim 6, Lundin in view of Jha teaches all the limitations of claim 5. In addition, Lundin teaches a system, characterised by a receiving component and a sending component, wherein said receiving component is configured to receive a positioning request from an location services (LCS) client (see p. 2 [0022], p. 3 [0025] and p. 4 [0028]), said processing component is configured to identify a home network for the subscriber; based on said identified home network (see p. 2 [0022], p. 3 [0025] and p. 4 [0028]), select a suitable positioning protocol from said positioning protocols for communication with said home network (see p. 3 [0023 & 0025] and p. 4 [0028-0029]), said sending component is configured to send a routing information request to the home network, said receiving component is configured to receive an answer from the home network, and said processing component is configured to analyse the answer for identifying the current network of the mobile station (see p. 2 [0022], p. 3 [0025] and p. 4 [0028]).

Regarding claim 7, Lundin in view of Jha teaches all the limitations of claim 5. In addition, Lundin teaches a system, characterised in that said sending component is configured to send a routing information request to the visited network, and said receiving component is configured to receive an answer including location information about the roaming subscriber from the visited network (see p. 2 [0022], p. 3 [0026] and p. 4 [0028]).

Regarding claim 8, Lundin in view of Jha teaches all the limitations of claim 5. In addition, Lundin teaches a system, characterised in that said positioning protocols are any of the SS7 protocol, and/or GMLC-centric IP roaming protocol and/or location middleware IP roaming protocol (see p. 3 [0023 & 0025] and p. 4 [0028-0029]).

Conclusion

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Muhonen et al., U.S. Publication Number 2005/0014500 A1 discloses method and system for locating a mobile terminal.

Weiss, U.S. Publication Number 2004/0198397 A1 discloses method and device for handling location-based services.

Kingdon et al., U.S. Patent Number 6,088,594 discloses system and method for positioning a mobile terminal using a terminal based browser.


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6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Anthony S. Addy whose telephone number is 571-272-7795. The examiner can normally be reached on Mon-Thur 8:00am-6:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Duc M. Nguyen can be reached on 571-272-7503. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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